

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS

Claim 1 (canceled)

2. (currently amended) A method for producing purified steam using a falling film evaporation tube unit, the method comprising the steps of:

a) introducing a feed stream of water to a falling film evaporation tube unit to produce a steam and a liquid;

b) collecting the liquid below a lower end of the falling film evaporation tube unit to form a volume of liquid;

c) circulating the steam upward in a spiraling rotational path;

d) separating droplets from the steam to form a first reject stream;

e) combining a portion of the volume of liquid with the feed stream to form a circulating liquid; and

f) removing a second reject stream from the circulating liquid~~A method according to claim 1, wherein a second reject stream is withdrawn from the circulating liquid.~~

3. (currently amended) A method according to claim 2~~claim 1 or 2~~, wherein the droplets are separated by means of a temperature controlled surface.

4. (currently amended) A method according to claim 2~~any claim 1 or 2~~, wherein dissolved gases are continuously removed from the circulating liquid.

5. (currently amended) A method according to claim 2~~any of claims 1 or 2~~, wherein ~~[[the]]~~a mass flow of the circulating liquid is at least twice the maximum product steam output.

6. (currently amended) A device for the production of purified steam, the device comprising:

a falling film evaporation tube unit;[[and]]

a unit for separating steam and liquid;[[;]] the separating unit comprising:

a central downpipe for receiving the evaporation product,

an outer shell defining an inner cavity,

an inner shell disposed in the inner cavity of the outer shell, the inner shell sealingly attaches to the outer shell along a lower edge and along an upper edge of the inner shell to define a space between the inner shell and the outer shell, the space fluidly communicating with a remaining portion of the inner cavity of the outer shell through an opening formed in an upper portion of the inner shell, and

~~an inner shell and an outer shell, the inner shell locally providing for passage of steam to the outer shell,~~

a set of fins forming a spiral path surrounding the downpipe;[[,]]

a first exit tube connected to the bottom of the space between the inner and the outer shell;[[,]]

a second exit tube connected to the remaining portion of the inner cavity of the outer shell;~~space inside the inner shell,~~ and

recirculation tubing connecting the second exit tube to an inlet of the falling film evaporation unit.

7. (currently amended) A device for producing purified steam, the device comprised of:

a falling film evaporation tube unit;

a separating unit for separating a steam and a liquid, the separating unit comprised of:

a central downpipe for receiving an evaporation product from the falling film evaporation tube unit,

an inner shell,

an outer shell, wherein the inner shell provides for passage of a steam to the outer shell, and

a set of fins forming a spiral path surrounding the central downpipe;

a first exit tube connected to a bottom of a space between the inner shell and the outer shell, the first exit tube for flowing a reject stream from the space;

a second exit tube connected to a space inside the inner shell, the second exit tube fluidly connected to the liquid in the inner shell;

a recirculation tubing fluidly connecting the second exit tube to an inlet of the falling film evaporation tube unit; and

a tube fluidly connected to the recirculation tubing for removing a reject stream therefrom
~~according to claim 6, comprising means to withdraw a reject stream from the recirculation tubing.~~

8. (currently amended) A device according to claim 7~~claim 6 or 7~~, comprising temperature control means fitted to the outer shell.

9. (currently amended) A device according to claim 7~~any claim 6 or 7~~, comprising means for withdrawing a stream from the inlet end of the falling film evaporator.

10. (currently amended) A device according to claim 7~~any claim 6 or 7~~, comprising a pump in the recirculation circuit having a mass flow capacity of at least twice the maximum product steam output of the device.